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UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/731,400	12/09/2003	Andrew Rodney Ferlitsch	SLA1350	4524

7590   09/04/2007

Gerald W. Mallszewski
P.O. Box 270829
San Diego, CA 92198-2829

EXAMINER
MCLEAN, NEIL R

ART UNIT	PAPER NUMBER
2625	

MAIL DATE	DELIVERY MODE
09/04/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/731,400	FERLITSCH, ANDREW RODNEY
	Examiner	Art Unit	
	Neil R. McLean	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>09 December 2003</u>.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle,* 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>04/08/04</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *12/09/2003*.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____ .

DETAILED ACTION

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2.   Claims 1-30 are rejected under 35 U.S.C. 102(e) as being anticipated by

Kawamoto (US 7,199,890).

Regarding Claim 1:

A method for managing print jobs using a print subsystem despooling

backplane, the method comprising:

accepting a print job at a print subsystem despooling backplane input interface

(Column 18, lines 61-67);

calling a despooling backplane plugin (The device which converts the print

command into intermediate code; Column 19, lines 11-13);

converting the print job into an internal representation (IR) document (Column 19,

lines 15-22);

processing the IR document in response to a plugin (Column 8, lines 52-54);

converting the processed IR document into a processed print job (The process

which allows the despooler 305 to again output the intermediate into printer command

for the printer; Column 19, line 27); and

supplying the processed print job at a despooling backplane output interface

(See 204 in Figure 3 supplying data to printer 1500).

Regarding Claim 2:

The method of claim 1 wherein calling a despooling backplane plugin includes

calling plugins chosen from the group including:

user-selected plugins;

predetermined plugins responsive to criterion such as printer driver, printer

model, printer configuration, printer condition, user, administrative grouping, document

content, and document type (Column 9, lines 45-50); and

plugins called from other plugins (Column 9, lines 45-50).

Regarding Claim 3:

The method of claim 1 wherein converting the print job into an IR document

includes converting the print job into an IR document that is independent of a printer

device target and the language format associated with a printer device target (Column

9, lines 11-13).

Regarding Claim 4:

The method of claim 3 wherein processing the IR document in response to the plugin includes performing a process selected from the group including translating the print job into an IR document (Column 9, lines 39-43), analyzing, modifying the print job data, modifying control of the print job, gathering print subsystem-external information related to the print job, producing print subsystem-external information related to the print job, setting print subsystem-external information related to the print job, and reassembling IR documents.

Regarding Claim 5:

The method of claim 4 wherein calling a despooling backplane plugin includes calling (Column 9, lines 20-23) a plurality of plugins (Column 9, lines 5-10); and

wherein processing the IR document in response to the plugin includes using the plurality of plugins to perform an action selected from the group including parallel processing the IR document (Column 9, line 18), serially processing the IR document, and processing the IR document using a combination of parallel and serial processes.

Regarding Claim 6:

The method of claim 5 wherein reassembling IR documents includes removing conflicts between a plurality of processed IR documents (Column 18, lines 50-55); and

wherein converting the processed IR document into a processed print job includes converting the plurality of IR documents into the processed print job.

Note: It is clear that Kawamoto's print control method is designed to repeat itself.

Regarding Claim 7:

The method of claim 4 wherein accepting a print job at a print subsystem despooling backplane input interface includes accepting a print job in a first language format (Column 17, lines 18-22) associated with a first printer device type;

wherein setting print subsystem-external information related to the print job includes selecting a second printer device type (Column 18, lines 53-55); and

wherein converting the processed IR document into a processed print job includes converting the IR document into a processed print job in a second language format associated with the second printer device type (Column 19, lines 22-27).

Regarding Claim 8:

The method of claim 4 wherein gathering print subsystem-external information related to the print job includes monitoring a printer condition (Column 11, lines 55-67) selected from the group including the availability of connected printing devices, currently printing print jobs, pending print jobs, completed print jobs, print job failures, printer performance, printer locality, and printer capabilities.

Regarding Claim 9:

The method of claim 8 wherein monitoring a printer condition includes:

querying a node selected from the group including a print subsystem spooler

(Column 7, line 45; System Spooler in Figure 2), a print subsystem port manager, a

printer manager, a print service, and a printer (1500 in Figure 2); and

maintaining a cache of printer condition information (Column 7, lines 19-21).

Regarding Claim 10:

The method of claim 1 wherein converting the print job into an IR document

includes storing the IR document as shared data (Column 8, lines 15-18); and

wherein processing the IR document in response to the plugin includes

processing the IR document accessed from shared data (Column 8, lines 40-45).

Regarding Claim 11:

The method of claim 4 wherein translating the IR document includes parsing

spool/raster image processor (RIP) footers and headers, parsing a print job control

header, and parsing language data selected from the group including raster (Column 6,

lines 56-59), image, and page description language (PDL) data.

Regarding Claim 12:

The method of claim 11 wherein parsing a print job control header includes:

calling a plurality of printer job control header plugins selected from the group

including printer job language (PJL) and job definition format (JDF) plugins (Column 7,

lines 30-34); and

using the print job control header plugin that recognizes the print job control

header data (Column 7, lines 58-62).

Regarding Claim 13:

The method of claim 11 wherein parsing language data includes:

calling a plurality of language plugins selected from the group including raster

(Column 6, lines 56-59), image, printer control language (PCL), portable document

format (PDF), PostScript (PS), PCL XL, HP GL/2, IPDS, Escape P, SCS, and TIFF

plugins; and

using the language plugin that recognizes the language data (Column 7, lines

58-62).

Regarding Claim 14:

The method of claim 4 wherein analyzing the IR document includes performing

an action selected from the group including job accounting, printer pooling, job splitting,

access control, security, content filtering, resource downloading, compression,

reformatting (Column 9, lines 45-50), and language translation.

Regarding Claim 15:

The method of claim 4 wherein gathering print subsystem-external information

related to the print job includes gathering information selected from the group including

a print subsystem host (3000 in Figure 3), a printer (1500 in Figure 3), a printer device

manager, and a print service.

Regarding Claim 16:

A print subsystem despooling backplane, the backplane comprising:

a library of despooling backplane plugins (203, 601 and 602 in Figure 5);

a controller having an interface to accept a print job (Column 18, lines 61-67),

the controller converting the print job to an internal representation (IR) document

(Column 19, lines 15-22) and supplying the IR document at an interface (Column 8,

lines 15-18);

a component processor having an interface to call a plugin from the library

(Spool File Manager 304 in Figure 3) and an interface to accept the IR document (Spool

File 303 in Figure 3), the component processor processing the IR document in response

to a plugin (Column 8, lines 52-54), converting the processed IR document into a

processed print job (Column 8, lines 54-55), and supplying the processed print job at an

interface (See 204 in Figure 3 supplying data to printer 1500).

Regarding Claim 17:

The backplane of claim 16 wherein the component processor calls plugins

chosen from the group including:

user-selected plugins; predetermined plugins responsive to criterion such as

printer driver, printer model, printer configuration, printer condition, user, administrative

grouping, document content, and document type (Column 9, lines 45-50); and

plugins that are called from other plugins (Column 9, lines 45-50).

Regarding Claim 18:

The backplane of claim 16 wherein controller converts the print job into an IR

document that is independent of a printer device target and the language format

associated with a printer device target (Column 9, lines 11-13).

Regarding Claim 19:

The backplane of claim 18 wherein the component processor performs a

process selected from the group including translating the print job into an IR document

(Column 9, lines 39-43), analyzing, modifying the print job data, modifying control of the

print job, gathering print subsystem-external information related to the print job,

producing print subsystem-external information related to the print job, setting print

subsystem-external information related to the print job, and reassembling IR

documents.

Regarding Claim 20:

The backplane of claim 19 wherein the component processor calls (Column 9,

lines 20-23) a plurality of plugins (Column 9, lines 5-10) and uses the plurality of plugins

to perform an action selected from the group including parallel processing the IR

document (Column 9, line 18), serially processing the IR document, and processing the

IR document using a combination of parallel and serial processes.

Regarding Claim 21:

The backplane of claim 20 wherein the component processor reassembles IR documents to remove conflicts between a plurality of processed IR documents and converts the plurality of IR documents into the processed print job (Column 18, lines 50-55).

Note: It is clear that Kawamoto's print control method is designed to repeat itself.

Regarding Claim 22:

The backplane of claim 19 wherein the controller accepts a print job in a first language format (Column 17, lines 18-22) associated with a first printer device type; and

wherein component processor uses print subsystem-external information related to the print job to select a second printer device type (Column 18, lines 53-55) and convert the IR document into a processed print job in a second language format associated with the second printer device type (Column 19, lines 22-27).

Regarding Claim 23:

The backplane of claim 19 wherein the component processor gathers print subsystem-external information related to the print job by monitoring a printer condition selected from the group including the availability of connected printing devices, currently printing print jobs, pending print jobs, completed print jobs, print job failures, printer

performance, consumables, printer locality, and printer capabilities (Column 11, lines 55-67).

Regarding Claim 24:

The backplane of claim 23 wherein the component processor monitors a printer condition includes by:

querying a node selected from the group including a print subsystem spooler (Column 7, line 45; System Spooler in Figure 2) , a print subsystem port manager, a printer manager, a print service, and a printer(1500 in Figure 2); and

storing the printer condition information in cache (Column 7, lines 19-21).

Regarding Claim 25:

The backplane of claim 16 further comprising:

a shared data memory (Spool File 303 in Figure 3); and

wherein the component processor accepts the IR document, stores the IR document in the shared data memory, and accesses the IR document from shared data memory for processing (Column 8, lines 40-45).

Regarding Claim 26:

The backplane of claim 19 wherein the component processor translates the print job into an IR document by parsing spool/raster image processor (RIP) footers and headers, parsing a print job control header, and parsing language data selected from

the group including raster (Column 6, lines 56-59), image, and page description

language (PDL) data.

Regarding Claim 27:

The backplane of claim 26 wherein the component processor parses a print job

control header by:

calling a plurality of printer job control header plugins selected from the group

including printer job language (PJL), and job definition format (JDF) (Column 7, lines 30-

34); and

using the print job control header plugin that recognizes the print job control

header data (Column 7, lines 58-62).

Regarding Claim 28:

The backplane of claim 26 wherein the component processor parses the

language data by:

calling a plurality of language plugins selected from the group including raster

(Column 6, lines 56-59), image, printer control language (PCL), portable document

format (PDF), PostScript (PS), and PCL XL, HP GL/2, IPDS, Escape P, SCS, and TIFF

plugins; and

using the language plugin that recognizes the language data (Column 7, lines

58-62).

Regarding Claim 29:

The backplane of claim 19 wherein component processor analyzes the IR

document by performing an action selected from the group including job accounting, job

control, printer pooling, job splitting, access control, security, content filtering, resource

downloading, compression, reformatting (Column 9, lines 45-50), and language

translation.

Regarding Claim 30:

The backplane of claim 19 wherein the component processor gathers print

subsystem-external information related to the print job by gathering information selected

from the group including a print subsystem host (3000 in Figure 3), a printer (1500 in

Figure 3), print service, and a printer device manager.

Conclusion

3.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure. Haltmeyer et al. (US 20030210417) discloses a method for

printing to any client printer in a network environment with only a printer server

application (a self-configuring driver) installed on the server and the individual printer

drivers installed only on the clients to which they are connected, the printer server

application dynamically detecting and adapting to any client printer drivers.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Neil R. McLean whose telephone number is 571. 270.1679. The examiner can normally be reached on Monday through Friday 7:30AM-5:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, King Poon can be reached on 571.272.7440. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.
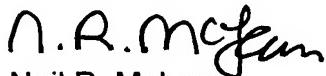
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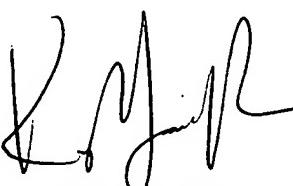
KING Y. POON
SUPERVISORY PATENT EXAMINER